

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please cancel claims 22 and 24-43. Please add new claims 44-68 as follows:

Listing of Claims:

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Claims 1-43. (Canceled).

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44. (New) A semiconductor structure, comprising:

a substrate having a trench formed therein and further having a surface;  
an isolation pad formed in the trench and having an upper surface extending from  
the surface of the substrate;

a gate structure formed on the surface of the substrate and laterally displaced from  
the isolation pad, the first gate structure having a gate oxide, a first gate layer, and a second gate  
layer formed on the first gate layer, the second gate layer having an upper surface at a first height  
relative to the surface of the substrate;

a component structure at least partially formed on the isolation pad and formed  
from the second gate layer, the second gate layer for the portion of the component structure  
formed on the isolation pad having a second height relative to the surface of the substrate surface  
less than the first height.

45. (New) The semiconductor structure of claim 44 wherein the second gate  
layer of the component structure is formed on the upper surface of the isolation pad.

46. (New) The semiconductor structure of claim 44 wherein the second gate  
layer of the gate structure has a first thickness and the second gate layer of the component  
structure has a second thickness greater than the first thickness.

47. (New) The semiconductor structure of claim 44 wherein the first gate layer has a first gate layer height relative to the surface of the substrate greater than a height of the upper surface of the isolation pad relative to the surface of the substrate.

48. (New) The semiconductor structure of claim 44 wherein the first gate layer has a first gate layer height relative to the surface of the substrate less than the second height.

49. (New) A semiconductor structure, comprising:  
a substrate having a trench formed therein and further having a surface;  
an isolation pad formed in the trench and having an upper surface extending from the surface of the substrate;

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a gate structure formed on the surface of the substrate and laterally displaced from the isolation pad, the first gate structure having a gate oxide, a first gate layer, and a second gate layer formed on the first gate layer, the second gate layer of the gate structure having a first thickness;

a component structure at least partially formed on the isolation pad and formed from the second gate layer, the second gate layer for the portion of the component structure formed on the isolation pad having a second thickness greater than the first thickness.

50. (New) The semiconductor structure of claim 49 wherein the second gate layer of the component structure is formed on the upper surface of the isolation pad.

51. (New) The semiconductor structure of claim 49 wherein the first gate layer has a first gate layer height relative to the surface of the substrate greater than a height of the upper surface of the isolation pad relative to the surface of the substrate.

52. (New) The semiconductor structure of claim 49 wherein the first gate layer has a first gate layer height relative to the surface of the substrate and the second gate layer

of the component structure formed on the isolation pad has a second height relative to the surface of the substrate greater than the first gate layer height.

53. (New) A microelectronic device, comprising:
- a microelectronic substrate;
  - a gate oxide layer formed on the substrate;
  - a polysilicon gate layer formed on the gate oxide layer;
  - a trench defined through the polysilicon gate layer, the gate oxide layer and extending into the substrate; and
  - a field oxide in the trench, the field oxide having a field oxide level between the level of an upper surface of the substrate and the level of an upper surface of the polysilicon gate layer.

54. (New) The microelectronic device of claim 53, further comprising a polysilicon adhesion layer formed over the polysilicon gate layer and the upper surface of the field oxide, the polysilicon adhesion layer having an upper surface over the upper surface of the field oxide below the upper surface of the polysilicon adhesion layer over the polysilicon gate layer.

55. (New) The microelectronic device of claim 53, further comprising a polysilicon adhesion layer formed over the polysilicon gate layer and the upper surface of the field oxide, the polysilicon adhesion layer having a first thickness over the upper surface of the field oxide and a having second thickness less than the first thickness over the polysilicon gate layer.

56. (New) A microelectronic device, comprising:
- a microelectronic substrate;
  - a gate oxide layer formed on the substrate;
  - a polysilicon gate layer formed on the gate oxide layer;

a trench defined through the polysilicon gate layer, the gate oxide layer and extending into the substrate;

a field oxide in the trench, the field oxide having a field oxide level between the level of an upper surface of the gate oxide and the level of an upper surface of the polysilicon gate layer;

a polysilicon adhesion layer formed over the polysilicon gate layer and the upper surface of the field oxide.

57. (New) The microelectronic device of claim 56, further comprising a silicide layer formed over the polysilicon adhesion layer.

58. (New) The microelectronic device of claim 56, further comprising a tungsten silicide layer formed over the polysilicon adhesion layer.

59. (New) The microelectronic device of claim 56 wherein the polysilicon adhesion layer has an upper surface over the upper surface of the field oxide below the upper surface of the polysilicon adhesion layer over the polysilicon gate layer.

60. (New) The microelectronic device of claim 56 wherein the polysilicon adhesion layer has a first thickness over the upper surface of the field oxide and a having second thickness less than the first thickness over the polysilicon gate layer.

61. (New) A microelectronic device, comprising:  
a microelectronic substrate having a trench formed in a surface thereof;  
a field oxide in the trench, the field oxide extending from the trench, beyond the surface of the substrate;  
a gate structure formed on the substrate and having a first polysilicon layer and a second polysilicon layer formed thereon, the gate structure extending from the surface of the

substrate by a height at least equal to approximately two times a height that the field oxide extends from the trench beyond the surface of the substrate; and

a component structure formed on the field oxide and formed from the second polysilicon layer, the component structure having a height relative to the surface of the substrate less than the height of the gate structure.

62. (New) The microelectronic device of claim 61, further comprising an oxide spacer adjacent the gate structure.

63. (New) The microelectronic device of claim 61 wherein the second polysilicon layer of the component structure is formed on an upper surface of the field oxide.

64. (New) The microelectronic device of claim 61 wherein the first polysilicon layer has a first layer height relative to the surface of the substrate that is greater than the height that the field oxide extends from the trench beyond the surface of the substrate.

65. (New) A microelectronic device, comprising:  
a microelectronic substrate having a trench formed in a surface thereof;  
a gate structure formed on the substrate having a first polysilicon layer with a first thickness and a second polysilicon layer formed on the first polysilicon layer and having a second thickness;

a field oxide deposited in the trench, the field oxide extending from the trench beyond the surface of the substrate by a height which is less than approximately one half of a height of the gate structure formed on the substrate; and

a component structure formed on the field oxide and formed from the second polysilicon layer, the second polysilicon layer of the component structure having a thickness less than the second thickness.

66. (New) The microelectronic device of claim 65, further comprising an oxide spacer adjacent the gate structure.

67. (New) The microelectronic device of claim 65 wherein the second polysilicon layer of the component structure is formed on an upper surface of the field oxide.

68. (New) The microelectronic device of claim 65 wherein the first polysilicon layer has a first layer height relative to the surface of the substrate that is greater than the height that the field oxide extends from the trench beyond the surface of the substrate.